Brown, L.E., P.V. Roling, J.L. Aplaca, and E. Keith. 2011. Notes on the flora of Texas, Arkansas, and Louisiana, with additions and other records. IV. Phytoneuron 2011-18: 1–12.

NOTES ON THE FLORA OF TEXAS, ARKANSAS, AND LOUISIANA, WITH ADDITIONS AND OTHER RECORDS. IV

LARRY E. BROWN
Spring Branch Science Center Herbarium
8856 Westview Drive
Houston, Texas 77055
Larry-theplantman@att.net

PAUL V. ROLING
4323 Chestergate
Spring, Texas 77373
PRoling@att.net

JED L. APLACA
115 Sabine Street
Houston, Texas 77002
jed.aplaca@houstontx.gov

ERIC KEITH
Raven Environmental Services
P.O. Box 6482
Huntsville, Texas 77009
Keith@ravenenvironmental.com

ABSTRACT

The following taxa are documented new to Texas: *Arivela viscosa, Euphorbia graminea, Indigofera hirsuta,* and *Muhlenbergia sericea. Eleocharis baldwinii* is reported new to Arkansas and *Setaria corrugata* is reported new to Louisiana. New collection records for Texas are provided for *Aeschynomene viscidula, Bassia scoparia, Bromus lanceolatus, Canavalia rosea, Carex decomposita, Carex kraliana, Carex planostachya, Ceratophyllum echinatum, Crepis zacintha, Desmodium incanum, Eleocharis baldwinii, Eleocharis mutata, Eleocharis wolfii, Galium triflorum, Glyceria striata, Ludwigia erecta, Mirabilis austrotexana, Mirabilis gigantea, Oxycaryum cubense, Paspalum acuminatum, Paspalum conjugatum, Ruta chalapensis, Setaria corrugata, Tradescantia fluminensis, Tradescantia subacaulis, Tridax procumbens, Utricularia purpurea, Wahlenbergia marginata,* and *Zeuxine strateumatica.*

Floristic work in the Houston area and east Texas counties, coupled with plants sent to the SBSC herbarium for identification and/or deposit, has revealed four species new to Texas plus one species new to Arkansas and one new to Louisiana, as well as new records for other Texas counties. Herbarium acronyms are those in Holmgren et al. (1990). Unless otherwise indicated, all cited collections are in the Spring Branch Science Center Herbarium (SBSC), Houston, Texas.

ASTERACEAE

Crepis zacintha (L.) Loisel. The first known collection for the United States was made in April 1992 in Waller County, Texas (Gandhi & Brown 1993). A second collection has now come to light, also from Texas.

Voucher: **Henderson Co.**: Open sandy field ca. 100 meters SW of Purtis Creek State Park Headquarters Building along W side of park road entrance, 29 Apr 2009, *Eric Keith 969* (SBSC).

Tridax procumbens L. Brown and Elsik (2002) reported this exotic composite new to Texas from Hidalgo County. It is now present in adjacent Starr County, where it was a sidewalk weed in the Roma historical district in downtown Roma.

Voucher: **Starr Co.**: Frequent sidewalk weed in the Roma historical district near the Roma Bluffs, a World Birding site, 17 Mar 2011, *Larry E. Brown 36220* and family (SBSC).

This pantropical weed of American origin is also present in Florida, where it occurs from Volusia County south to the keys of Monroe County. There is an isolated record for Leon County adjacent to the state of Georgia (Wunderlin & Hansen 2010).

CAMPANULACEAE

Wahlenbergia marginata (Thunb.) A. DC. Turner et al. (2003) mapped this Asian native in Hardin, Jasper, and Newton counties in extreme east Texas. Recent collections to the west in Harris and Montgomery counties are vouchered here.

Vouchers: **Harris Co.**: Jesse Jones County Park along Spring Creek at end of Kenswick Drive N off of Hwy 1960 W of Humble, along side of the new drainage ditch, 21 Apr 2011, *Paul V. Roling s.n.* (SBSC). **Montgomery Co.**: Tanyard Road ca 2 miles E of junction with Rt. 1097, NE of Willis, 17 Apr 2003, *Daniel P. Johnson 1602* (SBSC); on a high road cut through an outcrop along County Line Road E of the village of Willis and just E of intersection with Rose Road, 30°23.4' N and 95°29.0' W, 27 Aug 2008, *Larry E. Brown 33950* (SBSC); off of McCory Rd ca 100 yards S of Tanyard Rd all E of the village of Willis, 30°27.02' N and 9°522.37' W, Montgomery Co., Key Map 90 block Y, 12 June 2010, *Larry E. Brown 35512* (SBSC).

The Plants Database (USDA, NRCS 2009.) mapped it in eleven southeastern states from North Carolina and Florida west to Texas. It appears to be moving westward in Texas.

CERATOPHYLLACEAE

Ceratophyllum echinatum A. Gray Turner et al. (2003) mapped this submerged aquatic only in Bowie County. We voucher two collections far to the south in Harris County.

Vouchers: **Harris Co.**: Jesse Jones County Park N off of Hwy 1960 west of the village of Humble and at the end of Kenswick Drive, in swamp with boardwalk, 26 Oct 2010, *Paul Roling s.n.* with. Anita Howlett (SBSC); common in small cypress swamp in Jesse Jones County Park, between Spring Creek and Hwy 1960 W of Humble, 22 May 1985, *Larry E. Brown 8856* (SBSC).

CHENOPODIACEAE

Bassia scoparia (L.) Schrad. Turner et al. (2003) mapped this species as *Kochia scoparia* (L.) Schrad., largely in the northern Panhandle and the trans-Pecos regions of Texas and only in six scattered counties to the east of these two regions. Their most eastern record was Brazos County. We report collections from two additional eastern counties, with the most eastern record now in Chambers County.

Vouchers: **Chambers Co.**: salty, compacted dredged material on islands named Mid-Bay beneficial use cells in Galveston Bay, June 2007, *Jamie Schubert s.n.* (SBSC). **McLennan Co.**: on a dry soil in the Heart of Texas fairgrounds in Waco, Spring 2005, *Paul Roling s.n.* (SBSC).

CLEOMACEAE

Arivela viscosa (L.) Raf. This native of southeast Asia was reported from Florida, Georgia, Louisiana, and South Carolina with reports of non-persistent ballast plants in New Jersey and Pennsylvania (Tucker 2010). It was previously in the genus *Cleome* and mapped as C. *viscosa* L. in the family Capparidaceae
from only Natchitoches Parish, Louisiana (Thomas & Allen 1996; based upon the report by Holmes 1981). This is the first report of this species in Texas.

Vouchers: **Harris Co.**: Jesse Jones County Park N of Hwy 1960 west of Humble, enter park through the Kenswick subdivision and it is in the bottomland of Spring Creek at end of Kenswick Road, NE corner of bridge, August 2005, *Paul V. Roling s.n.* (SBSC); same site, 10 July 2006, *Paul V. Roling s.n.* (SBSC).

COMMELINACEAE

Tradescantia fluminensis Vell. Diggs et al. (2006) reported this tropical American native in Dallas, San Jacinto, Nacogdoches, Brazos, and Smith counties, but they did not map it in Brazos and Smith counties because they noted that records for those two counties were on the Digital Flora of Texas Herbarium Specimen Brower (2002) and not seen by them. We voucher the San Jacinto County specimen and add records for Harris and Montgomery counties. This species was not included in Turner et al. (2003).

Voucher: **San Jacinto Co.**: in a ravine about 0.5 mile W of downtown Coldspring, with *E. cyathophora* and southern shield fern, 5 Mar 2000, *Eric Keith s.n.* (SBSC). **Harris Co.**: Jesse Jones County Park at end of Kenswick Drive which exits to the north off of FM 1960 west of the city of Humble, fall 2008, *Paul Roling s.n.* (SBSC); Houston in the Sims Woods Conservation area along Sims Bayou W of the Telephone Road bridge over the Bayou. Key Map 535s, 18 Apr 1999, *Larry E. Brown 22988* (SBSC). **Montgomery Co.**: along trails in the George Mitchell Park in the Woodlands Development (exit I-45 onto the Woodlands Parkway and then onto Gosling to the south, next exit Gosling onto Flintridge going west — the Park entrance is on the S side of Flintridge), Harris Co. Key Map 250G, 26 April 2009, *Larry E. Brown 34515* with Native Plant Society (SBSC).

Tradescantia subacaulis Bush Maps for Texas spiderwort species in Turner (2006, for the entire state) and Diggs et al. (2006, for east Texas) are similar except Turner mapped *T. subacaulis* in Newton County and Diggs et al. did not. We voucher a Newton County collection.

Voucher: **Newton Co.**: on a sandhill in the vicinity of the village of Newton, 17 Mar 2001, *Larry E. Brown 25024* (SBSC).

CYPERACEAE

Carex decomposita Muhl. Turner et al. (2003) mapped this sedge in Marion and Wood counties. Jones (2006) mapped the additional counties of Jasper, Liberty, and San Jacinto. We report one other county.

Voucher: **Harris Co.:** Pundt Park in water of north lake; new county park at end of Spring Cypress Rd., E off of Aldine-Westfield Rd., Key Map 293 block Q, 2 May 2010, *P. Roling s.n.* (SBSC).

Carex kraliana Naczi & Bryson Turner et al. (2003) did not map this sedge in Texas. Jones in Diggs et al. (2006) reported it in Marion, Sabine, and Tyler counties. One new county is reported below.

Voucher: **Liberty Co.:** on an elevated area in a bottomland near Long John Creek, N of Dayton between Hwys 321 and 1008, Mar 2009, *Arthur Perkins s.n.* (SBSC).

Carex planostachys Kunze This sedge of alkaline soils extends east from the trans-Pecos area of Texas to Grimes County. The collection cited here extends the distribution one county to the east — Montgomery County has small, isolated areas of alkaline soils.

Voucher: **Montgomery Co.**: in a pasture 1 mile S of the village of Montgomery and 100 meters W of FM 149, 2 Apr 1999, *Eric Keith s.n.* (SBSC).

Carex typhina Michx. Turner at al. (2003) and Jones in Diggs et al. (2006) mapped this northern sedge clustered in seven northeast Texas counties. Jones in Diggs et al.(2006) mapped it south to Shelby and Jasper counties. We voucher a recent collection from Liberty County.

Voucher: **Liberty Co.**: Menard Creek Unit of the Big Thicket National Preserve, on slopes and slope edges of Menard Creek off of the road to Birdwatchers Trail (the road to the trail exits Hwy 2610 at a grocery store just S of the bridge over Menard Creek and north of Romayor), 30°29'20" N; 94°50'05" W at vehicle on road to parking lot for trail, 17 May 2008, *Larry E. Brown 33518* with Sam Harper (SBSC).

Eleocharis baldwinii (Torr.) Chapman. Lipscomb (1978) reported this small sedge from Caddo Lake State Park in Harrison County based upon *Fleetwood 1174* (SMU). Turner et al. (2003) mapped it in six counties in east Texas extending from Sabine County westward to Bastrop County. We report it in three new counties: Harris, Hardin, and Montgomery.

Vouchers: **Harris Co.**: in the new county park, Pundt Park, along Spring Creek at end of Spring Creek Drive east of intersection with Aldine Westfield Road, near 30°05.0' N, 95°22.5' W, 31 Aug 2009, *P.V. Roling s.n.* (SBSC). **Hardin Co.**: common in water at the Hwy 770 bridge over Little Pine Island Bayou east of Saratoga, Lance Rosier Unit of the Big Thicket National Preserve, near 30°16.96' N, 94°32.16' W, *Larry E. Brown 30387,* (TAES), *30163* (TAES). **Montgomery Co.**: in a pond in a housing tract in Pinehurt which is off of Hwy 1774 at intersection with Hwy 149, N of Tomball, 11 Aug 2000, *Charles Peterson 1654* (SBSC).

This species has not been reported in Arkansas (Smith 1988, 1994). SBSC was given an unidentified collection of *Eleocharis* from Arkansas that we later identified as this species.

Voucher: **Arkansas. Ouachita Co.**: Along north bank of Smackover Creek at Ark. 7 bridge at the Union County line S of Camden, Sec. 30, T15S, R16W, 8 Oct 2000, *R.D. Thomas and C. Doffitt 167,766 and CD-1062* (NLU, SBSC).

Eleocharis mutata (L.) Roem & Schult. Rosen and Jones (2004) reported this sedge new to North America based upon a 2002 Brazoria County collection and a 1941 Goliad County collection at TAES annotated as *E. acutangula* (Roxb.) Schult. We report an additional specimen from Galveston County.

Voucher: **Galveston Co.**: along trails and off trails in the Wetland Center of Texas A&M University across Pelican Road from the main campus on Pelican Island, 29°18' N, 94°57' W, 7 Jan 2008, *Larry E. Brown 33199* (SBSC, TAES).

Eleocharis wolfii (A. Gray) A. Gray ex Britton Turner et al. (2003) did not map this sedge in Texas. Diggs et al. (2006) however, mapped it in the northeastern counties Bowie and Morris as well as in Jefferson, Burleson, and Burnett counties. We report two additional counties — Brazoria and Harris.

Vouchers: **Brazoria Co.**: on the Parker Tract of the San Bernard National Wildlife Refuge, approx. 4.3 air miles SW of the intersection of Hwys 646 and 1745 in Santa Fe, in fields with occasional small trees in mesic forest; GPS - UTM 15 290783E 32465906N (NAD 83), 10 May 2005, *Larry E. Brown 30490* with David Rosen (SBSC). **Harris Co.**: in a field at the MRA land fill site, SE side of NASA Rt 1 behind Fiesta

Supermarket which is near intersection with Hwy I-45 south of Houston, Apr 1991, *Katie Northrup s.n.* (SBSC).

It was not rare in the Parker Tract fields. Diggs et al. (2006) considered it of possible conservation concern in Texas because it is rare in a number of states.

Oxycaryum cubense (Poepp. & Kunth) Lye Correll and Johnston (1979) reported this sedge, as *Scirpus cubensis*, very rare and known in the state only from a 1958 collection from Eagle Nest Lake in Brazoria County. At SBSC there are two recent Brazoria County collections from the Bird Pond tract of the San Bernard National Wildlife Refuge and one from Brazos Bend State Park in Fort Bend County. Turner et al. (2003) mapped it in Brazoria and Fort Bend counties. We report a recent collection from Orange County.

Voucher: **Orange Co.**: Beaumont Unit of the Big Thicket National Preserve, common at edge of a bald cypress swamp in and adjacent to a pipeline right of way that extends eastward from Four Oaks Ranch Road, all S of the intersection with Hwy 1139 N of Vidor, 30°09.49' N, 94°06.80' W, at car parked on Four Oaks Ranch Road across from the Salt Water Barrier on the Neches River, 21 Nov 2010, *Larry E. Brown 36044* with Shawn Harper (SBSC, TAES).

EUPHORBIACEAE

Euphorbia (Agaloma) graminea Jacq. This herb, native to tropical America, is mapped across a large part of Florida, extending from Escambia County in the panhandle eastward and southward to the Florida keys (Wunderlin & Hansen 2010). The following are five collections of it from three Texas counties.

Vouchers: **Fort Bend Co.**: in a flower planting at the Fort Bend County library (Sugarland Branch) in the city of Sugarland, located at 550 Eldridge at intersection with 7th Street, 11 Oct 2009, *Jed Aplaca 729* (SBSC). **Hardin Co.**: in flower pots in the parking area of the Lumberton Inn Motel off of Hwy 69/287 on N edge of Lumberton across Hwy from a Wal-Mart Store,16 Jun 2006, *Larry E. Brown 30331* (SBSC). **Harris Co.**: on grounds of the Sunnyside storefront police station at 3511 Reed Road in Houston, 20 Jul 2009, *Jed Aplaca 678* (SBSC); in a flower bed in the homestead farm area of the Jesse Jones County Park, which is N of Hwy 1960 to the W of the city of Humble, at the end of Kenswick Drive N of intersection with Hwy 1960, Harris County Key Map 335 block J, 25 Nov 2006, *P.V. Roling s.n.* (SBSC); a contaminate in potted plants at the home of Linda Knowles in Houston, Nov 2008, *L. Knowles s.n.* (SBSC).

Ward and Housel (2007) noted that this plant has rapidly expanded its range through association with greenhouse detritus and landscape plantings. They also provided characters to distinguish this species from the similar *E. oerstediana* (Klotzsch & Garcke) Boiss. *Euphorbia graminea* also is included in the key to the Florida species of *Euphorbia* in Wunderlin and Hansen (2003). The species likely arrived in Texas as a nursery stock containment.

FABACEAE

Aeschynomene viscidula Michx. Turner et al. (2003) mapped this joint-vetch from Calhoun County south along the coastal counties to Kennedy County. They also mapped it in four counties in the southeast edge of the Edwards Plateau. We report a collection of it from Harris County apparently somewhat separated from those mapped.

Voucher: **Harris Co.**: Houston, in a water area in the Holmes Road land fill site S of Holmes Rd., a few hundred feet W of the intersection with Kirby Road, 10 Nov 1998, *Larry E. Brown 22826* (SBSC).

Canavalia rosea (Sw.) DC. Lehman et al. (2005) reported this sea bean from Yarborough Pass on Padre Island in Kenedy County. However, they reported that it had not been seen in recent years.

Richardson (1995) reported it on loose sand near the coast in Cameron County. Turner et al. (2003) mapped sites, apparently on Padre Island, in Nueces, Kenedy, and Cameron counties. We report a recent collection from Galveston County.

Voucher: **Galveston Co.**: Galveston Island, sand dune off Seawall Blvd. across from Hotel Galvez, 28 Nov 2002, *Eric L. Keith 344* (SBSC).

Correll & Johnston (1979) indicated that *Canavalia rosea* is rare in Texas and perhaps not persistent. We have not found it again on Galveston Island, and it probably should be regarded as a species that is infrequently wafted into Texas from the tropics. Tom Patterson, however, has observed the following (see Nesom et al. 2010): "*Canavalia rosea* was collected from Padre Island in Kenedy Co. by Hildebrand in 1955. Turner collected it in Cameron Co. near the ferry landing in 1959. I visited the ferry landing site in 1995 and found *C. rosea* still persisting. Since then *C. rosea* is becoming a dominant dune plant in the town of South Padre Island."

Desmodium incanum DC. Correll and Johnston (1979) reported this introduced legume under the name *D. canum* (Gmel.) Schinz & Thell., known at the time only from DeWitt County. Isley (1998) and Turner et al. (2003) mapped it as *D. incanum* in Brazoria, San Patricio, and DeWitt counties. We report a collection from one additional county.

Voucher: **Harris Co.**: in a flower pot with other plants at the home of Linda Knowles, who indicated she transplanted it to the pot from somewhere in Houston, 27 Sep 2009, *Larry E. Brown 35040* (SBSC).

Indigofera hirsuta L. Hairy indigo is native to the Old Word tropics (Isley 1998) and is mapped in Alabama, Florida, Georgia, and South Carolina (USDA, NRCS 2009). The voucher is the first report for Texas.

Voucher: **Harris Co.**: on the esplanade on South Wayside Street near intersection with Wheeler Avenue in Houston, 29 Jul 2009, *Jed Aplaca s.n.* (SBSC).

LENTIBULARIACEAE

Utricularia purpurea Walter Turner et al. (2003) mapped this uncommon purple-flowered aquatic in Chambers and Hardin counties. We report a recent collection from San Jacinto County.

Vouchers: **San Jacinto Co.**: in a wetland at the Montgomery and San Jacinto County border at N edge of Hwy 105 between Cleveland and the bridge over Peach Creek, 15 Jun 2009, *Paul Roling s.n.* with Dale Kruse (SBSC).

MYRSINACEAE

Ardisia crenata Sims Turner et al. (3003) mapped this non-native only from Hardin County (based onn the report by Singhurst et al. 1997). We report another escaped population in a Houston park.

Voucher: **Harris Co.**: on slope of a small gully in the Houston Arboretum and Nature Center in Memorial Park (Memorial Park is entered off of Woodway Drive just east of the intersection with I-610 in Houston), deep in woods and not near any house or garden. 29°39.49' N, 95°52.52' W, at entrance to Arboretum, 14 Jan 2010, *Mary H. Pritchett and Russell Jeffers s.n.* (SBSC).

NYCTAGINACEAE

Mirabilis austrotexana B.L. Turner Turner et al. (2003) mapped this tall four o'clock of sandy soils from Lavaca and Bexar counties at the northernmost range south to Cameron County in extreme south Texas. We collected four specimens of it from the same site in Austin County and one specimen from Waller County. Our first specimen was collected on 29 October 1983 in Austin

County and at that time we identified it as *M. collina* Shinners. We were not comfortable with this identification and later corrected it with Turner's treatment (1993).

Vouchers: **Austin Co.**: on deep sands on the W side of the Brazos River along the north service road of I-10 bridge over the river, 29°46.2' N, 96°02.5 W, 16 Oct 2008, *Larry E. Brown 34129* (SBSC). **Waller Co.**: on deep sands adjacent to Clear Creek at the Hwy 1433 bridge, ca 1 mi E of Hempstead, 20 May 1997, *Larry E. Brown 20435* (SBSC).

Mirabilis gigantea (Standl.) Shinners Turner et al. (2003) mapped this tall species of sandy soils largely from Grayson County south to McLennan County with isolated sites in Walker and Washington counties. We add Waller County to the known distribution.

Voucher: **Waller Co.**: in field in the so-called Tucker Prairie of the Katy Prairie Nature Preserve, on the Waller County Key 362 in blocks H and M, 29°56' N, 95°53' W, 30 Jul 2008, *Larry E. Brown 33863* (SBSC).

ONAGRACEAE

Ludwigia erecta (L.) H. Hara Turner et al. (2003) mapped this species in Brazoria County. The Plants Database (USDA, NRCS 2009) mapped this water-primrose only in Alabama and Florida. We voucher two recent Harris County collections.

Vouchers: **Harris Co.**: tall yellow flowered herb at edge of small stream on service road of I-10 just E of the Mason Rd overpass of I-10 between Katy and Houston, 24 Oct 1992, *Larry E. Brown 16726* (SBSC); on sandy beach in Jesse Jones County Park along Spring Creek at end of Kenswick Drive N off of Hwy 1960 W of Humble, 20 Oct 2009, *Paul Roling s.n.* (SBSC).

Wunderlin and Hansen (2003) separated *Ludwigia erecta* from *L. octovalvis* (Jacq.) Raven by 4–5 mm long petals and 3–4 mm long calyx lobes vs. (10–)15–30 mm long petals and (5–)10–15 mm long calyx lobes in *L. octovalvis*. We have also noted that they differ in seed shape — i.e., seeds narrow, ca 0.5 mm wide and longer than wide in *L. erecta* vs. ca 1 mm wide and ca 1 mm long and thus more or less square in *L. octovalvis*. Larry Brown identified his collection as *L. octovalvis* until the differences in seed traits were noted. The first report for the species in Texas was by Turner et al. (2003), but it was undocumented.

ORCHIDACEAE

Zeuxine strateumatica (L.) Schlechter Turner et al. (2003) mapped this non-native orchid in Harris and Montgomery counties. We report recent collections in Brazoria, Fort Bend, and Galveston counties. Brown and Gandhi (1989) reported it from Kingwood in Montgomery County, but this was an error, since Kingwood is in Harris County.

Voucher: **Brazoria Co.**: along the roadside of FM 2004 ca 0.4 miles N of Chocolate Bayou, 31 Jan 2007, *John Ward s.n.* (SBSC). **Fort Bend Co.**: by a pool in the Sugar Grove Community near the city of Sugarland, growing in mulch under oleander shrubs, Mar 16, 2007, *Jed Aplaca 356* (SBSC). **Galveston Co.**: in a yard at South Shore Blvd. in the village of League City, 2 Feb 2007, *Vimlya Chopa s.n.* (SBSC).

POACEAE

Bromus lanceolatus Roth Gould (1975) reported this introduced grass as *Bromus macrostachys* Desf., present in Texas only in Brazos County near College Station. Turner et al. (2003) mapped it in Brazos and Washington counties. We report recent collections from Austin and Llano counties.

Vouchers: **Austin Co.**: Hwy 36 and Loop 497, N of Bellville, disturbed roadside and adjacent fields, associated
with *Nassella, Lolium perenne, Dichanthelium sphaerocarpon,* and *Sorghum halepense*, sandy soils, N

30°003'39.3" and W 96°20'10.7", 19 Apr 2002, *S.L. Hatch 8035* (TAES). **Llano Co.:** Shady stream bank on sandy clay in NW portion of Enchanted Rock State Park, WGS 84: 98.837638°E, 11 May 2008, *Eric L. Keith 940* (SBSC).

Glyceria striata (Lam.) Hitchc. Turner et al. (2003) mapped this grass, which is more frequent in the northern regions of the country, from far west Texas (probably from Guadalupe National Park in Culbertson County), from Lamar County (adjacent to Oklahoma), and in Blanco, Gillespie, McLennan, and Travis counties (central Texas). We report a collection of it from Hardin County in the Pineywoods of east Texas.

Voucher: **Hardin Co.:** in the Jack Gore Baygall Unit of the Big Thicket National Preserve, along the Wagon Road Trail, which is off of a pipeline right-of-way that is entered from the only section of the Unit adjacent to Hwy 2927, N of Silsbee, 30°27.6′ N, 94°10.6′ W, at entrance to Unit along Hwy 2927, 29 April 2009, *Larry E. Brown 3455* (TAES).

In Louisiana this grass does not extend as far south as in Texas, for it is present in only two parishes, Lincoln and Morehouse, near Arkansas (Allen et al. 2004).

Muhlenbergia sericea (Michx.) P.M. Peterson Charlotte Reeder in Gould (1975) reported this species, as *M. filipes* M.A. Curtis, in Texas region 2. At TAES we could find no Texas collections of it as *M. filipes* or as *M. capillaris* (Lam.) Trin. var. *filipes* (M.A. Curtis) Chapm. ex Beal. Correll and Johnston (1979) did not distinguish it varietally from *M. capillaris*. It was not included as a variety or species in Turner et al (2003) and not mapped by Peterson (2003) in Texas. It is purchased and cultivated under the name "purple muhly" (Peterson 2003), and in the Houston area, it is appearing more and more frequently in landscape plantings. How the voucher collection arrived in Jesse Jones County Park is not known, as there apparently are no cultivated plants in this area.

Voucher: **Harris Co.**: in Jesse Jones County Park, on top edge of a new drainage ditch, on W side of ditch halfway between bridge and south fence (park is along Spring Creek at end of Kenswick Drive, N off of Hwy 1960 W of Humble), 30°01.4′ N, 95°17.6′ W, at entrance gate to park, 18 Oct 2009, *Paul V. Roling s.n.* (SBSC).

In Louisiana, Allen at al. (2004) reported this grass at species rank, i.e., *M. sericea*, as rare on sandy coastal islands in St. Bernard and Terrebonne parishes. In Florida, Wunderland and Hansen (2003) reported it at varietal rank, i.e., *M. capillaris* var. *filipes*, as frequent on beaches, dunes, and wet flatwoods.

Paspalum acuminatum Raddi Gould (1975) saw no Texas collections. Turner et al. (2003) mapped it in the coastal counties of Chambers, Brazoria, Calhoun, Refugio, Aransas, and Cameron. Diggs et al. (2006) reported one record for Harris County, which is the first voucher listed below. We cite additional collections for Harris County and add Waller County to its distribution.

Vouchers: **Harris Co.**: in a wet prairie pot hole, N of Pine Forest Drive just W of intersection with Clay Road, W of Bear Creek Park in the Addicks Reservoir, W of Houston, 2 Oct 1998, *Larry E. Brown 22748* (SBSC); in water in the Sheldon Reservoir State Park off of highway 90 to the east of Houston, 30 May 2008, *Paul Roling s.n.* (SBSC); in water along Steinhagen Rd S of intersection with Grant Road and N of Little Cypress Creek, in village of Cypress N of Hwy 290, 30.013873° N, 95.684861° W, 3 Nov 2010, *Larry E. Brown 36064* (SBSC). **Waller Co.**: along Hebert Rd in a wet area on N side of unpaved section of road between paved section at Pattison Road and 1st curve going east, 29°56.01′ N, 95°53.78′ W, 6 Oct 2010, *Larry E. Brown 35874* (SBSC); in a prairie pot hole surrounded by sandy soil in the Tucker property of the Katy Prairie Conservancy, site located off of Berry Road N of the Katy Prairie field office, 29°57.74′ N, 95°54.41′ W, at locked gate to Tucker property, *Larry E. Brown 35336* with Paul Roling and other members of the Native Plant Society (SBSC).

This grass somewhat resembles *Urochloa platyphylla* and can be confused with it as Larry Brown did with a Big Thicket Beaumont Unit collection from Orange County, which he mistakenly identified in the field as *Paspalum acuminatum.*

Paspalum conjugatum P.J. Bergius Gould (1975) reported collections only from Cameron County. Turner et al. (2003) mapped collections in Cameron and Hardin counties. Diggs et al. (2006) mapped collections in Liberty and Cameron counties and indicated that the Hardin County record in Turner et al. (2003) was from a cultivated plant. All SBSC collections of it are cited below, adding records from Brazoria and Orange counties.

Vouchers: **Brazoria Co.**: in the Bird Pond Unit of the Brazoria County National Wildlife Refuge complex, off of FM 524 south of the intersection with FM 1301, Brazoria County Key Map 820 blocks Y and Z, 29°08'13" N and 95°47'43" W, 21 Oct 2001, *Larry E. Brown 26399a* (SBSC); in the San Bernard NWR, Dance Bayou Tract, E of FM 524 and just S of its intersection with Co Rd 743 at UTM 15229453E and 3223215N, infrequent in disturbed clearing along the S boundary fence line with *Rubus argutus*, *Paspalum* spp., and *Verbesina virginica*, 3 Jul 2002, *D.J. Rosen 2221* (SBSC); in the Hudson Tract of the San Bernard National Wildlife Refuge which is on the east side of C.R. 521 north of State Hwy 35, Aug 2002, *F. Hannah s.n.* (SBSC). **Liberty Co.**: in the first unit of the Trinity River National Wildlife Refuge, at parking lot for Unit off of unpaved road N of its intersection with the Davis Hill Church Rd (2252) E of Cleveland and west of the Trinity River, 20 Oct 2002, *Larry E. Brown 27442* (SBSC); in a bottomland hardwood forest in the Trinity River National Wildlife Refuge, near 30°17'23" N, 94°47'53" W, 27 Jun 2003, *Larry E. Brown 28310* (SBSC). **Orange Co.**: Beaumont Unit of the Big Thicket National Preserve, at edge of parking lot for the Confluence Boat Launch site at edge of the Neches River along Four Oaks Ranch Road S of its intersection with Hwy 1139 N of Vidor, 30°09.90'N, 94°06.61'W at car in parking lot, 4 Oct 2010, *Larry E. Brown 35849* (SBSC, TAES).

Diggs et al. (2008) considered *Paspalum conjugatum* to be of conservation concern in Texas because of its limited distribution.

Setaria corrugata (Elliott) Schult. Gould (1975) reported this grass in Harris, Jasper, and Walker counties. Turner et al. (2003) mapped it in the same three counties. However, on a recent visit to TAES we found a collection of it only from Walker County. Diggs et al. (2006) reported a new record for Liberty County. We voucher here the Liberty County record and add a collection from Hardin County.

Voucher: **Liberty Co.**: Menard Creek Unit of the Big Thicket National Preserve, on sandy alluvial soil near Menard Creek along CR 2142a E of the intersection with Hwy 146 and S of sign for Menard Acres housing tract, N of Rye and S of Hwy 146 bridge over Menard Creek (the west edge of the Menard Creek Unit is on the east side this road, near 30°28'05" N; 94°45'33" W), 14 Sep 2003, *Larry E. Brown 28807* (SBSC, TAES). **Hardin Co.**: on deep sandy soil in the Roy Larsen Sanctuary of the Texas Nature Conservancy organization (preserve is on the N side of Hwy 327 on the E side of Village Creek and W of the village of Silsbee), 30°20' N, 94°14' W, 8 Oct 2006, *Larry E. Brown 31856* (SBSC, TAES).

This grass is somewhat frequent on the deep sands of the Roy Larsen Sanctuary in Hardin County. Allen et al. (2004) included and keyed the species for Louisiana based upon Rominger (1962) but they saw no collections for the state. Later Rominger (2003) did not map it in Louisiana. R. Dale Thomas sent SBSC a sheet identified as *Setaria italica* — we annotated it in 2003 as *Setaria corrugata.*

Voucher: **Louisiana. Winn Parish**: Kisatchie National Forest, Winn Dist., Compt. 48, Stand 13, sandy soil in bluejack oak woods just N of USFS 592 and E of Sand Point, W of La. 157 and Calvin, Sec. 9 T12N, R5W, 3 Sep 1996, *R. Dale Thomas 151,670* (SBSC, NLU).

RUBIACEAE

Galium triflorum Michx. Shinners (1958) noted that this bedstraw is rare in east Texas (Sabine County) and that it also is known in Texas from a historic Reverchon collection from Dallas County. Diggs et al. (1999) noted the Dallas County collection, citing Mahler (1988), and indicated that the species has not been seen there recently. Turner et al. (2003) mapped *Galium triflorum* only in Dallas County. We do not know the basis for Shinners's report of it from Sabine County. Recent collecting in the Big Thicket National Preserve has resulted in a new record for the state.

Voucher: **Polk Co.**: BTNP, Big Sandy Unit, on somewhat sandy soil in an arid upland habitat adjacent to Lily/Monroe Rd, between intersection with Sunflower Road and Hwy 1276 N of Dallardsville, 30°38'26" N, 94°40'42" W, 1 Sep 2003, *Larry E. Brown 28789* (SBSC, TAES).

In Louisiana *Galium triflorum* is mapped in 14 parishes from the Arkansas border south to the Gulf parishes of Cameron and Iberia (Thomas & Allen 1998). It is not mapped in parishes adjacent to Sabine County, Texas. Smith (1988) mapped the species in Arkansas from the mid-state region (Phillips, Garland, and Montgomery counties) north to the Missouri state border. There are no Arkansas collections from near the Texas border.

RUTACEAE

Ruta chalapensis L. Turner et al. (2003) mapped *R. chalapensis* and *R. graveolens* in Texas. Both are invasive non-natives. Turner et al. (2003) mapped *R. chalapensis* in Kendall, Real, and Presidio counties. Our collection from Galveston County, which has the fringed petals and pointed capsule lobes of *R. chalapensis* (Correll & Johnson 1979), is far distant from those previously mapped.

Voucher: **Galveston Co.**: Waste fields in Galveston, 1965, *R.A. Vines s.n.* (SBSC).

VERNONICACEAE

Capraria biflora L. Ideker (1996) reported this new for Texas, as *Capraria mexicana* Moric. ex Benth., from Starr County. Turner et al. (2003) mapped it with the same name in Zapata County. However, the PLANTS Database (USDA, NRCS 2009) treats *C. mexicana* as a synonym of the primarily Caribbean *C. biflora* L., and this name is used for the *Capraria* in Florida (Wunderlin & Hansen 2003). We report a recent collection from Cameron County.

Voucher: **Cameron Co.**: along trails in the Hugh Ramsey Nature Park, parking area off of Hwy 499 just N of the bridge over the Arroyo Colorado waterway, typical south Texas brush vegetation, 28°11.07' N, 97°39.85' W, 26 Dec 2010, *Larry E. Brown 36085a* and family (SBSC).

It is possible that the Nature Park population was derived from plants transported from one of the other known populations. Lockwood et al. (2008) indicated this 55 acre park has been "transformed into an urban oasis by extensive native landscaping projects."

ACKNOWLEDGMENTS

We thank Walter Holmes and Guy Nesom for detailed reviews of the manuscript. Larry E. Brown also thanks John Kartesz <www.bonap.org> for requesting distribution data from plants on deposit at SBSC. This work, which occurred over several months, resulted in the update of the nomenclature of all SBSC collections and revealed the significance of some of the plants that appear in this paper.

LITERATURE CITED

Allen, C.M., D. Allen, and H. Winters. 2004. Grasses of Louisiana (ed. 3). Allen's Native Ventures, LLC, Pitkin, Louisiana.

Brown, L.E. and K.N. Gandhi. 1989. Notes on the flora of Texas with additions, range extensions and one correction. Phytologia 67: 394–399.

Brown, L.E. and I.S. Elsik. 2002. Notes on the flora of Texas with additions and other significant records II. Sida 20: 437–444.

Correll, D.S. and M.C. Johnston. 1979. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner, Texas.

Diggs, G.M., B.L. Lipscomb, and R. J. O'Kennon. 1999. Illustrated Flora of North Central Texas. Sida Bot. Misc. 16.

Diggs, G.M., B.L. Lipscomb, M.D. Reed, and R.J. O'Kennon. 2006. Illustrated Flora of East Texas, Vol 1: Introduction, Pteridophytes, Gymnosperms, and Monocotyledons. Sida Bot. Misc. 26.

Digital Flora of Texas Herbarium Specimen Browser. 2002. Accessed Nov 2002, no longer available.

Gandhi, K.N. and L.E. Brown. 1993. *Crepis zacintha* (Asteraceae), adventive in Texas, and the first record in North America. Sida 15: 547–550.

Gould, F.W. 1975. The Grasses of Texas. Texas A&M Univ. Press. College Station.

Holmes, W.C. 1981. *Cleome viscosa* L., Capparidaceae, new to Louisiana. Sida 9: 187.

Holmgren, P.K., N.H. Holmgren, and L.C. Barnett. 1990. Index Herbariorum, ed. 8. New York Botanical Gardens. New York.

Ideker, J. 1996. *Capraria mexicana* (Scrophulariaceae), an endangered addition to the United States. Sida 17: 523–526.

Jones, S.D. 2006. *Carex* Pp. 514–556, *in*: Diggs, G.M., B.L. Lipscomb, M.D. Reed, and R.J. O'Kennon. Illustrated Flora of East Texas, Vol 1: Introduction, Pteridophyte, Gymnosperms, and Monocotyledons. Sida Bot. Misc.26.

Lehman, R.L., R. O'Brien, and T. White. 2005. Plants of the Texas Coastal Bend. Texas A&M Univ. Press, College Station.

Lipscomb, B. 1978. Additions to the Texas flora. Sida 7: 392–394.

Lockwood, M.W., W.B. McKinney, J.N. Paton, and B.R. Zimmer. 2008. A Birder's Guide to the Rio Grande Valley. American Birding Association.

Mahler, W.F. 1988. Shinners' Manual of the North Central Texas Flora. Sida, Bot. Misc. 3.

Nesom, G.L., J.L. Aplaca, W.R. Carr, N.L. Fowler, L.L. Hansen, S.L. Hatch, B.W. Hoagland, W.C. Holmes, E.L. Keith, B.L. Lipscomb, B.R. MacRoberts, M.H. MacRoberts, J.A. McDonald, T.F. Patterson, J.M. Poole, A.M. Powell, N. Rich, M.D. Reed, D.J. Rosen, J.R. Singhurst, B.A. Sorrie, B.L. Turner, D.E. Waitt, and J.K. Williams. 2010. Texas non-native plants: Overview of occurrence and invasiveness assessments. <http://www.texasnonnatives.org>

Peterson, P.M. 2003. *Muhlenbergia* (Poaceae). Pp. 145–200, *in*: Flora of North America, vol. 25, part 2. Oxford University Press. New York.

Rosen, D.J. and S.D. Jones. 2004. *Eleocharis mutata* (Cyperaceae) new to the flora of North America north of Mexico. Sida 21: 1153–2004.

Rominger, J.M. 1962. Taxonomy of *Setaria* (Gramineae) in North America. Illinois Biol. Monogr. 29: 1–132.

Rominger, J.M. 2003. *Setaria* (Poaceae). Pp. 539–558, *in*: Flora of North America, Vol. 25, part 2. Oxford Univ. Press, New York.

Shinners, L.H. 1958. Spring flora of the Dallas-Fort Worth area Texas. Published by the Author. Dallas, Texas

Singhurst, J.R., W.J. Ledbetter, and W.C. Holmes. 1997. *Ardisia crenata* (Myrsinaceae): New to Texas. Southwestern Naturalist 42: 503–504.

Smith, E.B. 1988. An atlas and annotated list of the vascular plants of Arkansas, 2nd edition. Univ. of Arkansas Press, Fayetteville.

Smith, E.B. 1994. Keys to the flora of Arkansas. Univ. of Arkansas Press, Fayetteville.

Thomas, R. Dale and C.M. Allen. 1996. Atlas of the Vascular Flora of Louisiana. Vol. 2. Dicotyledons. Louisiana Dept. of Wildlife & Fisheries, Natural Heritage Program.

Thomas, R. Dale and C.M. Allen. 1998. Atlas of the Vascular Flora of Louisiana, Vol. 3: Dicotyledons. Louisiana Dept. of Wildlife & Fisheries, Natural Heritage Program.

Tucker, G.C. 2010. *Arivela* (Cleomaceae). Pp.221–222 , *in*: Flora of North America. Vol. 7. Oxford Univ. Press, New York.

Turner, B.L. 1993. Texas species of *Mirabilis* (Nyctaginaceae). Phytologia 75: 432–451.

Turner, B.L., H. Nichols, G. Denny, and O. Doran. 2003. Atlas of the Vascular Plants of Texas. Vol 1: Dicots,. Vol.2: Ferns, Gymnosperms, Monocots. Sida Bot. Misc.24.

USDA, NRCS. 2009. The PLANTS Database. National Plant Data Center, Baton Rouge, LA <http://plants.usda.gov>

Ward, D.B. and C.M. Housel. 2007. A corrected identification and a new combination for a recent Florida introduction: *Agaloma graminea* (Euphorbiaceae). Phytologia 89: 225–227.

Wunderlin, R.P. and B.F. Hansen. 2003. Guide to the Vascular Plants of Florida (ed. 2). Univ. Press of Florida., Gainesville.

Wunderlin, R.P. and B.F. Hansen. 2010. Atlas of Florida Vascular Plants. [S.M. Landry and K.N. Campbell (application development), Florida Center for Community Design and Research] Inst. for Systematic Botany, Univ. of South Florida, Tampa. <http://www.plantatlas.usf.edu/>